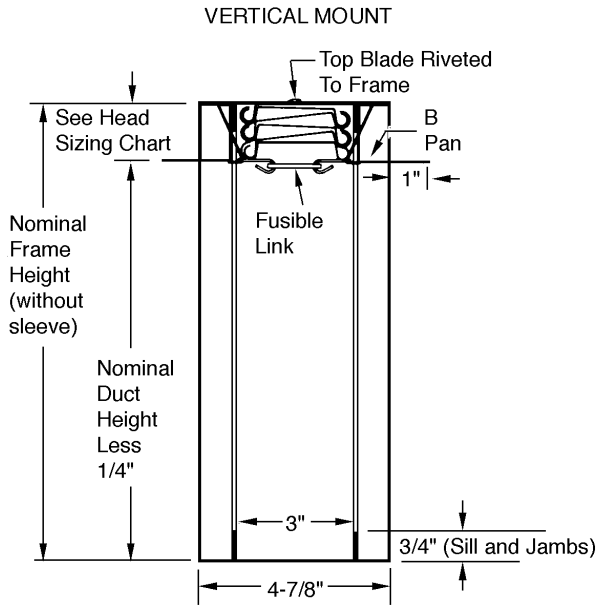


**FIRE/SEAL® UL-CLASSIFIED
1-1/2 HR. STATIC RATED
FIRE DAMPER**

**MODEL 117B
VERTICAL & HORIZONTAL**

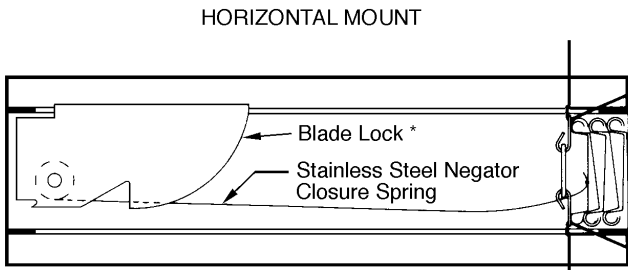
Classified by Underwriters Laboratories as a 1-1/2 hour fire protection rated Fire Damper, in accordance with Standards UL-555 and NFPA-90A, for the protection of openings in fire partitions having a fire resistance rating of less than 3 hours.



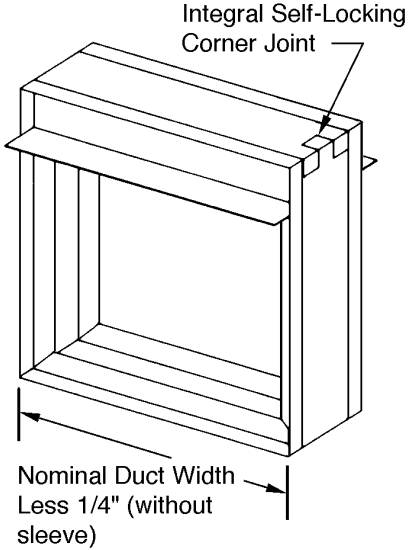
UNDERWRITERS LABORATORIES, INC.
CLASSIFIED
FIRE DAMPERS
FIRE RESISTANCE RATING 1-1/2 HR.
 SEE U.L. CLASSIFIED BUILDING MATERIALS INDEX

Arrow United Industries, Inc.

**California State Fire Marshal Listing No.
3225-1328:100**



(*) Damper to be installed with blade lock points facing DOWNWARD and with access from above.



STANDARD MATERIALS & CONSTRUCTION:

FRAME: One-piece rollformed 22 Ga. galvanized steel.
BLADES: 22 Ga. galvanized steel curtain-type.

FUSIBLE LINK: UL-listed 165°F; replaceable
 (Optional 212°F available at no additional charge).

CLOSURE SPRINGS (Horizontal Models): Heat-treated Type 301 stainless steel force coiled negator type.


- PROJECT:**
- LOCATION:**
- ARCHITECT**
- ENGINEER:**
- CONTRACTOR:**
- PO NUMBER:**
- DATE:**

DIMENSIONAL DATA:

MINIMUM SIZE: 4"W X 3"H (Duct).
MAXIMUM SIZE - VERTICAL (Model 117BV):
 Single Panel: 60"W x 55"H (Duct), 60"W x 60"H (Frame).
 Multiple Panel: 120"W x 76"H (Duct), 120"W x 80"H (Frame);
 in max. panels of 40"W x 36"H (Duct), 40"W x 40"H (Frame).
MAXIMUM SIZE - HORIZONTAL (Model 117BH):
 Single Panel: 48"W x 43"H (Duct), 48"W x 48"H (Frame).
 Multiple Panel: 97"W x 38"H (Duct), 97"W x 42"H (Frame);
 in max. panels of 36"W x 38"H (Duct), 36"W x 42"H (Frame).

NOTE: Unassembled multiple units do not include mullions.

*Additional Information
on reverse side*



Arrow United Industries
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 www.arrowunited.com

ARROW UNITED INDUSTRIES SUBMITTAL DATA

**FIRE/SEAL® UL-CLASSIFIED
1-1/2 HR. STATIC RATED FIRE DAMPER**

MODEL 117B

FREE AREA (sq. ft.)
Duct Width (in.)

DUCT HEIGHT (in.)	4"	8"	12"	16"	20"	24"	28"	32"	36"	40"	44"	48"	52"	56"	60"
4"	.06	.2	.3	.4	.5	.5	.6	.7	.8	.9	1.0	1.1	1.2	1.3	1.4
8"	.2	.4	.6	.8	1.0	1.2	1.4	1.6	1.8	2.0	2.2	2.4	2.6	2.8	3.0
12"	.2	.5	.9	1.2	1.5	1.8	2.1	2.4	2.7	3.0	3.4	3.7	4.0	4.3	4.6
16"	.3	.7	1.2	1.6	2.0	2.4	2.8	3.3	3.7	4.1	4.5	5.0	5.4	5.8	6.2
20"	.4	.9	1.4	2.0	2.5	3.0	3.6	4.1	4.7	5.2	5.7	6.3	6.8	7.3	7.9
24"	.4	1.1	1.7	2.4	3.0	3.7	4.3	5.0	5.6	6.3	6.9	7.5	8.2	8.8	9.5
28"	.5	1.2	2.0	2.8	3.5	4.3	5.0	5.8	6.5	7.3	8.0	8.8	9.5	10.3	11.0
32"	.6	1.5	2.3	3.2	4.0	4.9	5.8	6.7	7.5	8.4	9.3	10.1	11.0	11.9	12.7
36"	.7	1.6	2.6	3.6	4.6	5.5	6.5	7.5	8.5	9.5	10.4	11.4	12.4	13.4	14.4
40"	.7	1.8	2.9	4.0	5.1	6.2	7.3	8.4	9.4	10.5	11.6	12.7	13.8	14.9	16.0
44"	.8	2.0	3.2	4.4	5.6	6.8	8.0	9.2	10.4	11.6	12.8	14.0	15.2	16.4	17.6
48"	.8	2.1	3.3	4.6	5.9	7.1	8.4	9.6	10.9	12.1	13.4	14.7	15.9	17.2	18.4
52"	.9	2.4	3.8	5.2	6.6	8.0	9.5	10.9	12.3	13.7	15.2	16.6	18.0	19.4	20.9
56"	.9	2.4	3.9	5.3	6.8	8.3	9.8	11.3	12.8	14.3	15.8	17.3	18.8	20.3	21.8

HEAD SIZING CHART	
If duct height is:	Inches to add for head:
3" through 18"	2"
19" through 28"	3"
29" through 40"	4"
41" through 55"	5"
56" through 57"	3"
58" through 76"	4"

*
VERTICAL MULTIPLE UNITS ONLY

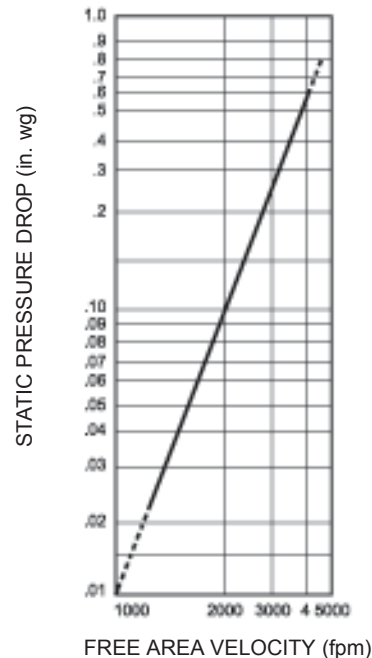
$$\text{FREE AREA VELOCITY [FPM]} = \frac{\text{FLOW (cfm)}}{\text{FREE AREA (sq. ft.)}}$$

(* Note: Maximum duct height for horizontal units:
Single Panel Damper: 43" DUCT Height
Multiple-Panel (Wide) Dampers: 38" Height.

See DIMENSIONAL DATA on front side.

AVAILABLE OPTIONS:

1. Factory-supplied sleeves (20 Ga. through 10 Ga.).
2. Type 304 stainless steel construction.
3. 212°F fusible link.
4. Electro Thermal Link [ETL®].
5. SPDT "closed damper" position indicator switch.



IN THE INTEREST OF PRODUCT DEVELOPMENT, ARROW UNITED RESERVES THE RIGHT TO MAKE CHANGES WITHOUT NOTICE.

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